National Park Service
U.S. Department of the Interior

Denali National Park and Preserve
Alaska

Horseshoe Lake Trail Improvements and Additions Environmental Assessment
December 2013

As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to assure that their development is in the best interests of all. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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I. PURPOSE AND NEED

The National Park Service (NPS) is proposing to extend the Horseshoe Lake Trail by incorporating well used social trails to create a loop around Horseshoe Lake (see Figure 1). The park's General Management Plan calls for expanding day use opportunities in the front country area along with improved resource protection. The purpose of the new trail would be to protect resources while providing a safe and sustainable trail for visitors to enjoy. This trail is needed because substantial pedestrian use has caused resource damage on unsustainable route locations (see Figure 2).

The 1996 Entrance Area and Road Corridor Development Concept Plan (DCP/EIS) designated certain areas around the park entrance and along the road corridor for increased development which would provide a variety of expanded opportunities for visitors in the entrance area and along the road corridor of the park. The expanded opportunities that were proposed included formalized trails. This concept was widely supported during public review of the DCP/EIS.

This plan also supports Denali's 5-Year Strategic Plan. Specifically, this plan supports Goal 1 – Protect our Heritage by improving wildlife habitat; and Goal 2 – Provide Exceptional Experiences by accommodating visitor activities while protecting park resources.

This Environmental Assessment (EA) analyzes a No Action Alternative, and the NPS preferred action for the construction of a trail extending around Horseshoe Lake in Denali National Park and Preserve and has been prepared according to the National Environmental Policy Act of 1969 and regulations of the Council of Environmental Quality (40 CFR 1508.9).

Background

The entrance area of Denali National Park and Preserve serves as a staging area for bus tours to the park's interior and as the primary park experience for visitors not riding a bus past Savage River. Facilities and services in the park entrance area currently include the Wilderness Access Center (formerly Visitor Access Center), the Denali Visitor Center (DVC) campus and Murie Science and Learning Center campus (MSLC), NPS interpretive programs, Riley Creek Campground, the railroad depot, the Denali Park Post Office, the airstrip, a network of hiking trails, the sled dog kennels at park headquarters, the Riley Creek Mercantile, and support facilities for the concessionaire including a bus maintenance building, bus parking lot, and employee housing.

The Denali Visitor Center, restaurant, and bookstore were opened in May 2005 on the site of the former Denali Park Station Hotel. The Murie Science and Learning Center (MSLC) began programs in 2003, and is housed in facilities north of the former hotel site. A winter visitor contact center opened on the MSLC campus in September, 2004. A new Alaska Railroad (AKRR) train depot also opened in 2004.

Trails in the entrance area include a multi-purpose trail connecting the park entrance with the DVC, Riley Creek Campground and Mercantile, a Roadside Path that connects the DVC with park headquarters, the Rock Creek Trail that also connects the DVC with park headquarters, the Jonesville Bridge pedestrian trail from the entrance of the Riley Creek Campground to the

Nenana River bridge at the park boundary, a new trail paralleling the George Parks Highway and connecting the Nenana River bridge to the park entrance, the Mt. Healy Overlook Trail, Horseshoe Lake Trail, Taiga Loop Trail, McKinley Station Trail, and other trails leading to destinations off the Denali Park Road. Numerous trailheads and connections between these trails have been re-established during the construction of the new visitor center complex and MSLC.

Horseshoe Lake is located at Mile 1 of the Denali Park Road and accessed by a trailhead at the Alaska Railroad crossing. The Horseshoe Lake Trail was built in 1940 by the Alaska Road Commission, and has been a popular destination for hikers ever since. The Horseshoe Lake Trail is traveled by over 200 visitors per day during peak season (2011 NPS data) and was determined eligible for the National Register of Historic Places in 2013. This oxbow lake is an abandoned channel of the Nenana River and provides excellent wildlife habitat and viewing opportunities for moose, beaver, fish, and birds. Seventy years of high use has degraded the existing trail. Human impacts extend to the Nenana River, out to a peninsula with an active beaver lodge, and across active beaver dams. Currently, a network of social trails surrounds the lake and follows the banks of the creeks and river.

Figure 1 – Project Area

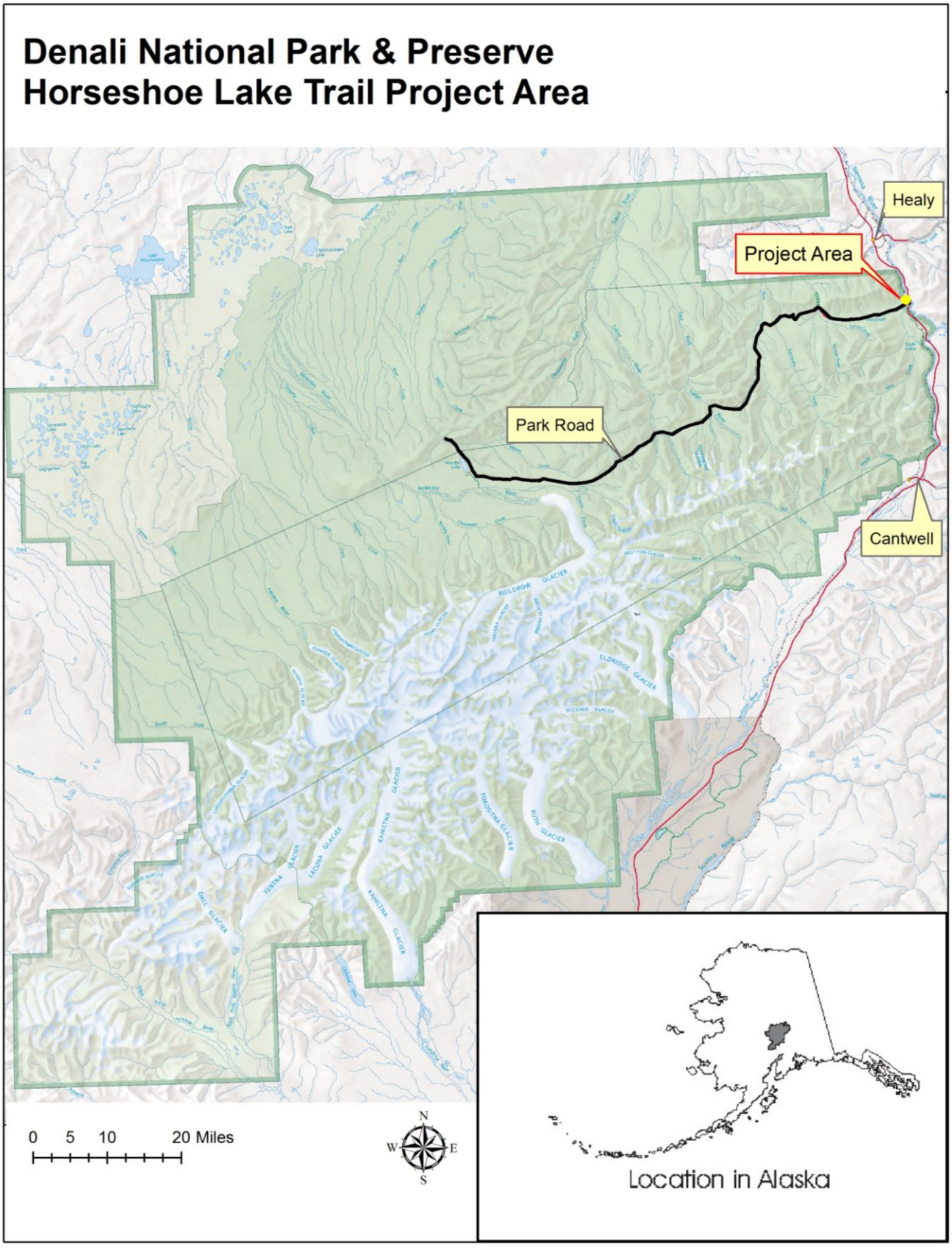
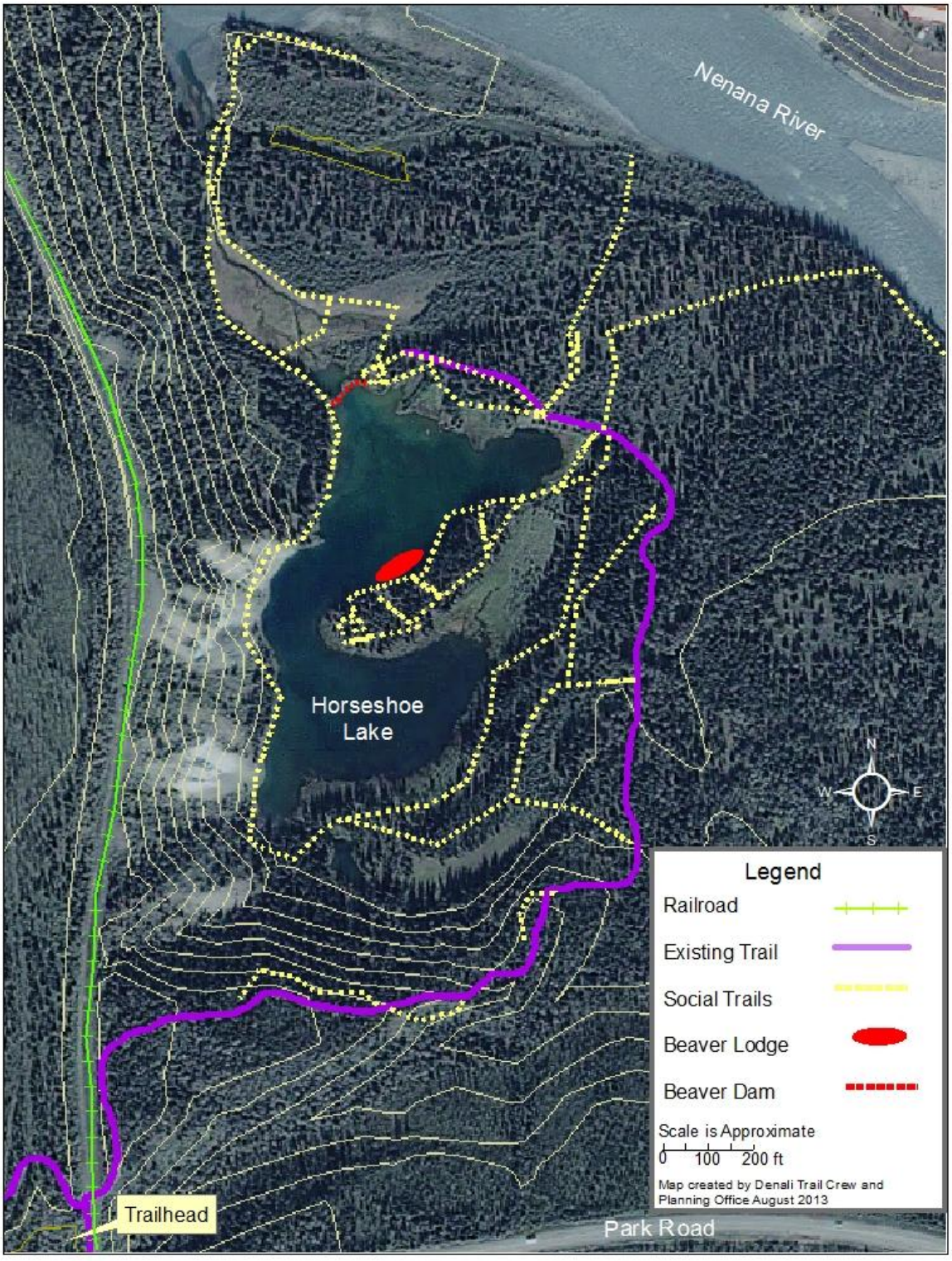


Figure 2 – Horseshoe Lake Area – Existing Conditions



Legal Context

The 1916 Organic Act directed the Secretary of the Interior and the NPS to manage national park units to:

> "…conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." (16 U.S.C. 1.)

The Organic Act also granted the Secretary the authority to implement "rules and regulations as he may deem necessary or proper for the use and management of the parks, monuments and reservations under the jurisdiction of the National Park Service." (16 U.S.C. 3.)

In 1917, Congress established Mount McKinley National Park:

> "…as a public park for the benefit and enjoyment of the people . . . said park shall be, and is hereby established as a game refuge." (39 Statute 938)

Additions to the park were made in 1922 and 1932 to provide increased protection for park values and, in particular, wildlife. The 1932 addition moved the eastern park boundary from a north-south line near park headquarters to the western bank of the Nenana River, including a right-of-way for the Alaska Railroad. An Act of Congress transferred federal ownership of the AKRR to the State of Alaska in 1985, giving the AKRR an exclusive use easement in the 200 foot wide right-of-way.

1978 amendments (Redwoods Act) to the 1916 NPS Organic Act and 1970 NPS General Authorities Act expressly articulated the role of the national park system in ecosystem protection. The amendments further reinforce the primary mandate of preservation by stating:

> "The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided for by Congress." (16 U.S.C. 1-a1.)

The Alaska National Interest Lands and Conservation Act of 1980 (ANILCA) added approximately 2,426,000 acres of public land to Mt. McKinley National Park and approximately 1,330,000 acres of public land as Denali National Preserve and re-designated the entirety Denali National Park and Preserve. ANILCA also designated 99% of the former Mt. McKinley National Park as wilderness. ANILCA directs the NPS to preserve the natural and cultural resources in the park and preserve for the benefit, use, education, and inspiration of present and future generations. The Act further directs the NPS to manage for the continuation of customary and traditional subsistence uses in the park and preserve additions in accordance with provisions in Title VIII.

The NPS Organic Act and the General Authorities Act prohibit impairment of park resources and values. The 2006 NPS Management Policies uses the terms "resources and values" to mean the the park's scenery, natural and historic objects, and wildlife, and the processes and conditions that sustain them; appropriate opportunities to experience enjoyment of the above resources, to the extent that can be done without impairing them; and any additional attributes encompassed by the specific values and purposes for which the park was established. The impairment of park resources and values may not be allowed unless directly and specifically provided by statute. The primary responsibility of the NPS is to ensure that park resources and values will continue to exist in a condition that will allow the American people to have present and future opportunities for enjoyment of them.

Issues

Issues and impact topics are identified and form the basis for environmental analysis in this EA. A brief rationale is provided for each issue or topic that is analyzed in the environmental consequences section of this EA. Issues and topics considered but not addressed in this document also are identified.

Vegetation, Wetlands, and Soils

Trail construction would remove vegetation and soils in the project area and fill wetlands. Specific concerns include:

- New trail construction and formalizing social trails would remove up to 0.2 acres of white spruce mixed forest.
- Vegetation would be removed during construction of the trail and soils exposed because of the project could be susceptible to erosion.
- Less than 0.1 acre of wetlands would be disturbed during construction.
- Overall improvements to vegetation and soils are expected due to restoration of social trails.

Wildlife Values and Habitat

Trail construction and visitor use would remove wildlife habitat and affect habitat use. Specific concerns include:

- Up to 0.3 acre of habitat would be removed due to new trail construction.
- Conditions at the beaver lodge may improve due to deterring use of peninsula area.

Cultural Resources

Four archaeological sites are located within the project area; one of which, the Horseshoe Lake Trail, has been determined eligible for the National Register of Historic Places. The other three sites have been evaluated and found to lack significance and/or integrity and are not eligible for listing. As designed, the project will not adversely affect the Horseshoe Lake Trail. Beneficial impacts would occur when existing resources are interpreted through signage.

Visitor Experience and Opportunity

Trail construction could affect visitor use. Specific concerns include:

- Extension Horseshoe Lake Trail would improve visitor experience by providing additional hiking opportunities in the entrance area, which does not require access by bus.
- The extension would also provide safe constructed trails and eliminate hazardous social trails.

Issues Eliminated from Further Consideration

Wilderness Character

Wilderness character will not be affected since the Horseshoe Lake Area is not in designated or eligible wilderness as determined by ANILCA and the 1986 GMP respectively.

Effects on Threatened and Endangered Species

The Endangered Species Act requires an analysis of impacts on all federally listed threatened and endangered species, as well as species of special concern. In compliance with Section 7 of the Act, the U.S. Fish and Wildlife Service (USFWS) was consulted. No federally designated threatened or endangered species are known to occur within Denali National Park (pers. comm. Ted Swem, USFWS, Fairbanks, Alaska, September 9, 2013).

Species of Special Concern

Trail construction activities would not impact species of concern due to the standard mitigation measures used for such projects.

Air Quality

Exhaust from equipment such as power wheelbarrows would contribute a small amount of air pollution due to the short duration of operation.

Floodplains

Creeks would be bridged to connect trail segments. The bridge and puncheon would span the full creek beds and would not interfere with floodplain flows or other floodplain values. The trail along the river would be marked with rocks and raked but no permanent trail tread would be constructed.

Natural Soundscape

Trail construction activities would degrade natural sounds by only a small amount due to the context of existing background of noise from planes, trains, and automobiles.

Subsistence Use

Subsistence use is not allowed in the project area or on any of the lands of the former Mt. McKinley National Park. No impacts to subsistence activities would occur from this trail project and no further ANILCA Section 810 analysis is required.

Local Communities/Socioeconomic Resources

Although trails provide additional recreation opportunities in the entrance area, it would be impossible to attribute any increased visitation to the area.

Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations,* requires all federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. This project would not result in significant changes in the socioeconomic environment of the area, and therefore is expected to have no direct or indirect impacts to minority or low-income populations or communities.

Permits and Approvals Needed to Complete the Project

A concurrence from the State Historic Preservation Officer has been obtained with a determination of no adverse effect on cultural resources for this project.

Confirmation from the U.S. Army Corps of Engineers was received verifying that the project is authorized by Nationwide Permit No. 18, Minor Discharges (see Appendix C).

A National Park Service Wetlands Statement of Findings used to evaluate wetlands impacts and prescribe mitigation measures and compensation efforts, is not required for this project. Scenic overlooks and foot/bike trails or boardwalks, including signs, where primary purposes include public education, interpretation, or enjoyment of wetland resources and where total wetland impacts from fill placement are 0.1 acre or less may be permitted.

A National Park Service Statement of Findings to evaluate impacts to floodplains is not required because the establishment of foot trails in non high-hazard areas is an excepted action as it requires little physical development and does not involve overnight occupation. The bridge location is out of the floodplain. The log puncheon will be placed on the ground to span a small intermittent drainage but will not affect or obstruct the flow of water.

II. DESCRIPTION OF THE ALTERNATIVES

Alternative 1 - Existing Conditions (No Action Alternative)
The NPS would not extend the Horseshoe Lake Trail and visitors would continue to travel around the lake by any route they choose. The peninsula would continue to receive heavy use and compaction of beaver dams from visitors walking on them would likely continue. Existing social trails would continue to be used and new social trails may be established.

Alternative 2 – Create loop trail around Horseshoe Lake and rehabilitate social trails (NPS Preferred)
Under this alternative the NPS would extend the Horseshoe Lake Trail (Figure 3) around the lake and along the Nenana River. One bridge and one log puncheon would be constructed. The existing planks leading to the peninsula area would be removed and signs used to deter traffic from the peninsula to prevent further impacts to wildlife and the large active beaver lodge located adjacent to it. A trail to a lake overlook would be created along an existing social trail on the ridge south of the lake. Social trails would be revegetated and signed to encourage visitors to remain on the maintained trail.

Table 1 – Description of Alternative 2 Components

Component	Length (ft)	Width (inches)	Description
Formalize existing social trails	4825	24-30	Remove excess organics and replace with compacted gravel surface.
Boardwalk	400	30	Existing social trail through wetlands. Rough cut timbers over half buried logs with a gravel pad under the logs.
High Water Trail	930	30	Would be constructed if river trail is routinely inaccessible. Compacted gravel. Removal of approximately 50 trees less than 6" in diameter and limbs from larger trees.
River Trail	835	30	Raked in existing sand and gravel, marked by rocks
Overlook Trail	275	30	Braided social trails. One trail to overlook will be formalized and the rest will be revegetated.
Trail to River	510	30	Existing social trails. Remove excess organics and replace with compacted gravel surface.
Beaver Dam Viewing Area			Gravel pad along with signage and/or fencing to prevent walking on beaver dam.
Stringer Bridge	38	48	Steel stringers. AK yellow cedar decking and handrails. Concrete abutments will be covered
Log Puncheon	20	30	Log walkway over flood channel

Materials would be brought in by hand, dog team, power wheelbarrows, river raft, and/or helicopter. All helicopter use in Denali involves detailed planning and approval by the park's Aviation Officer and Park Superintendent. If possible, helicopter use would be done prior to peak visitor use periods. Trail crew will use power wheelbarrows, plate compactors,

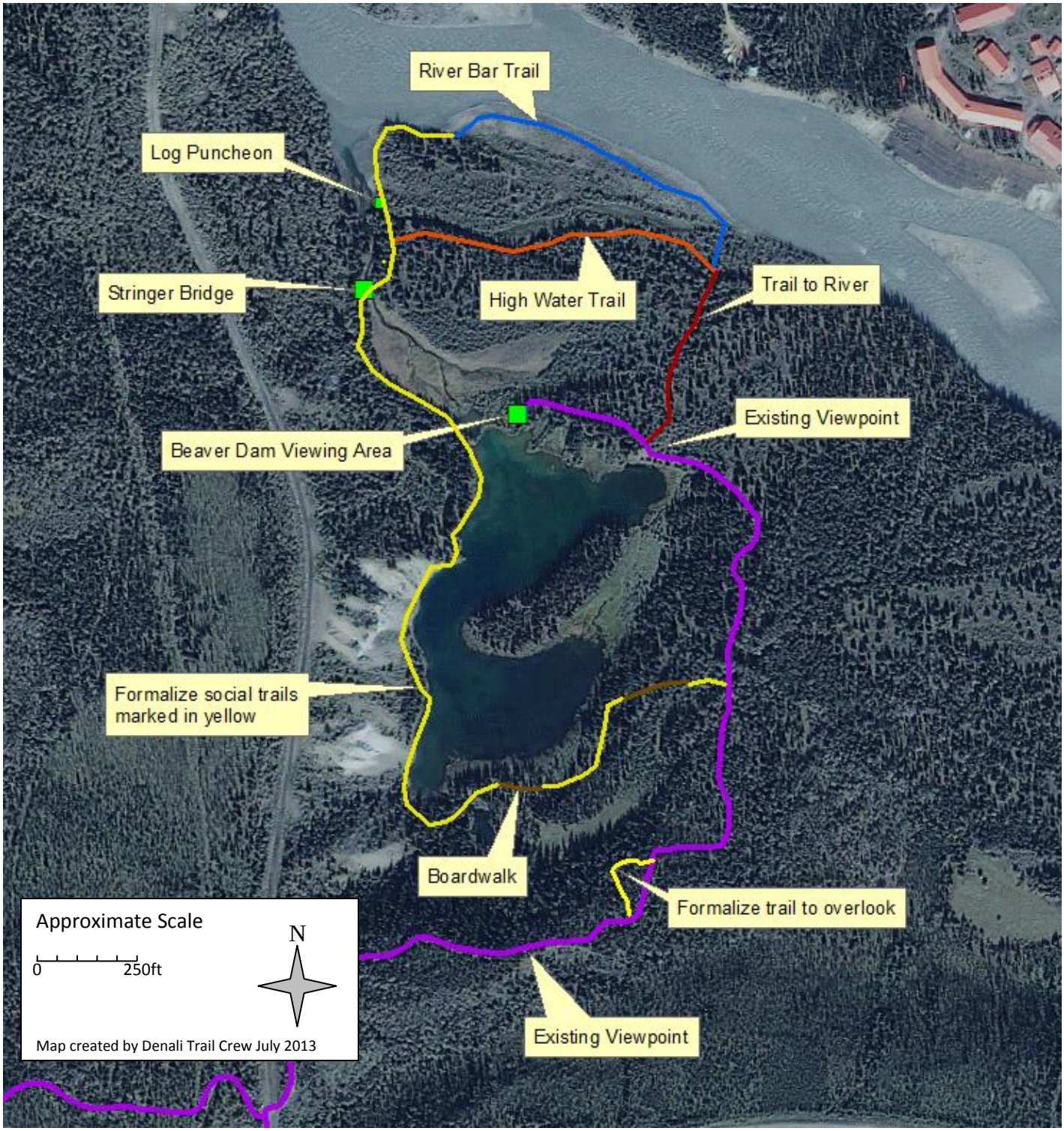
chainsaws, and an assortment of hand tools during trail construction. Cable hoists and rigging systems would be used to move stumps and rocks, as well as assist during bridge and puncheon construction. A generator and power carpentry tools would be used during construction of the bridge and boardwalk.

The boardwalk may be covered in heavy fishnet if the walking surface becomes slippery.

Interpretive signs would be added on either side of the trail to interpret the cultural and natural features of the project area. Small signs would be installed to indicate revegetation areas.

The park's trail crew would salvage as much in the way of vegetation mats as is possible during construction of the trail re-routes for use in revegetating social trail segments.

Figure 3 – Alternative 2 – Proposed Work



Alternatives Considered and Eliminated from Further Evaluation

- Build loop around lake but continue to allow visitors onto peninsula. This alternative did not address the impacts to the beaver lodges located on the peninsula. Visitors are often seen near or on the lodges.
- Build loop with route through wetlands north of lake. This alternative would have too great an impact to wetlands.
- Eliminate trail section along rail line. Several meetings were held but no clear solution was found to eliminate the need to walk along and cross the rail line. The park will continue explore new options to eliminate this segment of trail.
- Build an accessible trail from Wilderness Access Center (WAC) with 5% grade and eliminate current trailhead. A considerable amount of time and research went into this alternative but no route could be identified on the slope below the WAC that would not result in substantial resource impacts, including permafrost melting and engineered structures to keep a trail from sliding downhill. The route identified still included sections of trail with 8-9% grade.

Environmentally Preferred Alternative

Alternative 2 is identified as the Environmentally Preferred Alternative because it prevents further social trailing and the resulting impacts to vegetation, soils, and wildlife.

Mitigation and Monitoring

Mitigation measures are specific actions that when implemented reduce impacts, protect park resources, and protect visitors. The following mitigations would be implemented under alternative 2 and are assumed in the analysis of effects.

Vegetation

-Vegetation mats that need to be removed from the trail surface would be saved and relocated to abandoned trail segments.

-Periodic surveys would be conducted to determine the presence of exotic plants. If found, the Vegetation Specialist will be consulted to determine the best course of action.

-Trails Supervisor would work with Vegetation Specialist to determine best course of action for revegetation efforts.

Wildlife and Habitat

-The NPS would follow established guidelines in the park's bear-human conflict management plan. The plan requires contractors and staff to use bear-proof containers for food and refuse, and sets up guidelines for temporary closures.

-To avoid destroying and/or disturbing occupied bird nests and cavity trees within the project area in accordance with the Migratory Bird Treaty Act (MBTA), park staff will take several measures including:

1) not cutting or removing vegetation during the nesting season for most species of birds (May 1 to August 1);

2) conduct a site-specific survey in April before the project begins to locate occupied nests of species that begin nesting before May 1 (i.e., owls, corvids) and implement appropriate protective measures to protect occupied nests;

3) conduct a site specific survey in May to locate occupied nests of waterfowl,

shorebirds and kingfishers and provide recommendations for protecting occupied nests;
4) provide recommendations for protecting nest trees for cavity nesting species such as Barrow's Goldeneye, American Kestrel, Boreal Owl, and Northern Flicker; and
5) implement appropriate protective measures to protect any occupied bird nest discovered within the project area during the construction phase.

-Construction area will be kept free of debris and will be checked at the end of each day for small objects that could be ingested by wildlife.

Cultural Resources

-If cultural resources or items protected by the Native American Graves Protection and Repatriation Act are discovered during this project, all project related activities in the vicinity of the discovery will be stopped and the park archaeologist will be notified immediately. Denali National Park and Preserve in consultation with the State Historic Preservation Officer and other consulting parties would determine a course of action per 36 CFR Part 800.13.
-Park archaeologist will determine if periodic monitoring of ground disturbance for the trail and bridge construction will be needed.
-Interpretation staff will work closely with Park Archeologist to develop language for any signs interpreting cultural resources.

Visitor Experience and Opportunity

-Visitors would be advised in park announcements, programs, and publications that there would be temporary inconveniences from construction work on the trail.
-If helicopters are used to transport materials, efforts will be made to complete flights prior to peak visitor season.

Table 2. Summary Impacts of the Alternatives

IMPACT TOPIC	Alt. 1 – No Action	Alt. 2
Vegetation, Soils, and Wetlands	Minor adverse impact due to continued impact from social trail development	Negligible beneficial impacts due to restoration and reduction of social trails despite up to 0.3 acre removal of spruce forest and up to 0.1 acre impact to wetlands
Wildlife and Habitat	Minor adverse impact due to continued hiking on beaver lodges	Negligible beneficial impacts due to improvement of beaver habitat despite up to 0.3 acre habitat removal, with minor effect
Cultural Resources	Continued adverse impacts due to social trails	Minor beneficial impacts due to the opportunity for interpretive signage
Visitor Experience and Opportunity	Continued adverse impacts due to social trails	Minor benefits to visitors from increased opportunities for trail hiking, access to cultural resources

III. AFFECTED ENVIRONMENT

Detailed descriptions of the environment in the entrance and road corridor areas may be found in the 1986 GMP and the 1996 DCP/EIS. This section summarizes the natural and human environment that may be affected by the proposal and alternatives under consideration.

The project is located in the Denali front country, an area with high visitor use during the summer season. The project area is bordered by the Nenana River, Denali Park Road, and the Alaska Railroad. The Parks Highway is just beyond the Nenana River.

Vegetation, Wetlands, and Soils

In the mid-1920s, a number of fires burned over the entrance area. By 1939, when the Park Hotel opened near the railroad depot, mostly low shrubs and immature aspen and spruce trees dominated the area. Now taiga forest plant associations occur with mature white spruce and aspen dominating the vegetation. A variety of plant species comprise the understory, including alder, willows, Labrador tea, blueberry shrubs, and Alaska rose. Riparian zones are dominated by tall willow species, alder, and white spruce.

Three generic soil types occur in the project area. One soils type underlies upland forested areas and is gravelly or boulder filled, silty soil with humus layers supporting mosses and lichens. The second soil type occurs in wetland areas or in forest openings and it consists mostly of poorly drained silts and clays above thick gravel layers or bedrock. The other soil is in the riparian areas, with a gravelly or boulder filled, silty soil without a well-developed organic layer.

Wildlife Values and Habitat

The landscape surrounding Horseshoe Lake Trail and the lake itself owes its existence to the beaver. Other common wildlife species in the project area are red fox, snowshoe hares, red squirrels, and various birds such as chickadees, ravens, magpies, and numerous migratory species. Wetland areas can provide important foraging areas for moose and habitat for small mammals, migratory and resident birds.

Cultural Resources

Cultural resources in the park entrance area include archeological sites and historic buildings and structures. Approximately 25 cultural sites and features are located in the entrance area. The Horseshoe Lake Trail is historic and will not be adversely affected. Three other sites in the project area are not eligible for the National Register of Historic Places.

Visitor Experience and Opportunity

Approximately 440,000 people visit Denali's entrance area annually. On an average day, about 40% of the day's visitors remain in the entrance area. Park bus use has remained steady since 1999, but visitation of all types is expected to increase over the next 10-15 years. The DVC and MSLC both enhance visits and recreational and educational opportunities (NPS Data).

During the summer months there is a lot of day-hiking activity in the entrance area, both on maintained trails and on game trails, and the abandoned roads and trails that had activity during the 1920s. Maintained trails include the Horseshoe Lake Trail, Mt. Healy Overlook Trail, Rock

Creek Trail, Roadside Path, Jonesville Bridge Trail, Taiga Loop Trail, the new multi-purpose trail that was finished in 2005 between the entrance and new visitor center, the McKinley Station Trail, The Savage Alpine and Loop Trails, and the Triple Lakes Trail.

In addition to the bus systems that provide access to the interior of the park, every 20 minutes a bus runs a loop through the area, connecting the DVC, MSLC, railroad depot, WAC, and Riley Creek Campground and Mercantile. Many local businesses run a bus or van regularly to the park entrance area, including to the Horseshoe Lake Trail trailhead, and to the facilities in the Healy Canyon. Bicycle use is restricted to the Denali Park Road, campground roads, and to the multi-purpose trail.

In the summer months, interpretive hikes are led by park staff on the Horseshoe Lake Trail. These depart the DVC several times a day. The trail is used by over 200 visitors a day during peak season (2011 NPS data). Visitors often visit the river area and the peninsula area which are not part of the formal Horseshoe Lake Trail.

In the winter months, school groups use Horseshoe Lake to measure the ice thickness for the Alaska Lake Ice and Snow Observatory Network (ALISON). Winter use of this area may increase due to the park's recent decision to plow the road to the Mountain Vista Rest Area at mile 12.

IV. ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

Assumptions for Impact Analysis

This section contains an evaluation of the direct and indirect environmental impacts of one action alternative and the no action alternative. The analysis assumes that the mitigation identified in the *Mitigation and Monitoring* section of this environmental assessment would be implemented under any of the action alternatives.

Cumulative impacts were analyzed to add up the incremental impacts to the environment resulting from adding the alternatives to other past, present, and reasonably foreseeable future actions. The cumulative impacts relate primarily to: (1) the continued implementation of the visitor and educational facility improvements proposed in the Entrance Area EA of December, 2001, (2) the build-up of facilities in the entrance area of the park (3) construction of the Mountain View Rest Stop; and (4) construction of trails such as Triple Lakes and Savage Alpine.

Alternative 1 – Existing Conditions (No Action)

Vegetation, Wetlands and Soils

No vegetation, soils or wetlands would be removed or disturbed by park management. Existing social trails would continue to be used and new ones would likely be established. This could result in erosion and loss of vegetation. Although this is not a change from existing conditions, the impacts would be long-term minor and adverse.

Wildlife Values and Habitat

Additional social trailing could occur which may result in loss of additional habitat for small mammals, birds, and moose. Continued use of social trails may result in compaction and ventilation changes of the beaver lodges (pers. Comm. Tom Meier). The lack of bridges over the creek to the north of the lake causes some visitors to cross the beaver dams. This is not a change from current condition but it is considered a long-term minor adverse impact.

Cultural Resources

The Horseshoe Lake Trail is an historic property and will not be adversely affected by this project. However, other cultural resources in the area could be adversely impacted due to continued social trailing.

Visitor Experience and Opportunity

This alternative would not provide any additional recreational opportunities. Some visitors would continue to use or create new social trails to access the Nenana River and other routes through wetlands and around the lake. Over 200 visitors per day frequent the trail during peak season. The trail also has winter and shoulder season use by school groups and visitors. Visitor experience could be adversely impacted due to continued social trailing.

Cumulative Effects: The impacts of this alternative to resource values, including vegetation, wildlife habitat, cultural resources, and visitor experience and opportunity, would be negligible to minor and there would not be a contribution to any impacts from other local or regional projects.

Alternative 2 – Create loop trail around Horseshoe Lake and rehabilitate social trails (NPS Preferred)

Vegetation, Wetlands and Soils

Under this alternative less than 0.3 acre of white spruce-mixed forest community would be removed for the construction of the trail segments that are not located on existing social trails. The limited vegetation removal from this alternative would not have a significant impact on the thousands of acres of taiga forest and other vegetation resources near the paved section of the Denali Park Road corridor. The forest in this area is somewhat open so the trail would wind through most trees.

Up to 0.3 acre of evergreen forest wetland would be affected by the installation of a wooden boardwalk on a palustrine scrub-shrub, needle-leaved evergreen/broad-leaved deciduous, saturated soil wetlands. Only the area under the support logs would be impacted. This type of wetland is common locally and regionally and placing boardwalk on 0.02 acre would have a negligible effect on the flood retention, habitat and other values received from wetlands.

A few inches of organic soil attached to the vegetation would be removed from the length of the trail. The soil types are common under white spruce-mixed forests. The soils would be saved for use in the reclamation of social trails.

Cumulative Effects: Commercial and private development as well as the growth of transportation and utility systems in and near the Denali frontcountry have resulted and would continue to result in the loss of several hundred acres of spruce forest, especially in the Nenana River corridor outside the park boundary. Additional commercial and private development along the Nenana River corridor is expected to result in the disturbance of hundreds of acres of vegetation and soils during the foreseeable future. A moderate loss of and disturbance to vegetation and soil in the park entrance area and along the Denali Park Road corridor has occurred because of previous development, primarily visitor facilities and construction and maintenance of roads and trails. The total disturbance in the park development zone between the Parks Highway and park headquarters is about 85 acres, with an additional 20 acres disturbed in the area where the Denali Park Road crosses the Savage River. This includes acres of cleared vegetation for the George Parks Highway, Denali Park Road, WAC, DVC, MSLC, Riley Creek Campground, Riley Creek Mercantile, sewer treatment plant, airstrip, railroad, Morino Grill, bus maintenance facilities, concession housing, area trails, and road, parking areas and trails at the Savage River. An additional 15 acres of vegetation clearing and tree removal is maintained under the hazardous fuels management plan to remove hazardous fuel around park buildings. The incremental impact to vegetation and soils in the entrance area from implementation of this trail project would be less than 1% of the total disturbance in the park entrance area and Savage River area.

About 4.1 acres of wetlands have been impacted by previous road, trail, and building construction in the park entrance area. The entrance area and Riley Creek backcountry of the park contains hundreds to thousands of acres of similar non-jurisdictional wetlands. This project would further impact less than 0.02 acre of wetlands in the surrounding area, which would be less than a 1% increase in wetland area affected. Because the area of wetlands adversely impacted would be small and installation of a boardwalk would not affect the functioning of the

wetlands, there would be only a negligible increase in the loss of wetlands or wetlands function in the park.

Conclusion: Due to the small area affected by trail and boardwalk construction and the large number of social trails to be restored, the overall impacts of this project to vegetation, wetlands, and soils are expected to be long-term negligible and beneficial.

Wildlife Values and Habitat

Wildlife habitat for large mammals, small mammals, and birds would be reduced by less than 0.3 acres of white spruce-mixed forest community. During the construction period noise and human activity would disturb wildlife and cause them to be temporarily displaced from the affected and adjacent areas. Current social trails extend onto the peninsula adjacent to an active beaver lodge. This beaver lodge may be adversely impacted from visitors walking onto it. Visitors also walk on beaver dams, which is unsafe and can damage the functioning of the dam. Restoration of social trails would offset the new trail construction and overall impacts would be long-term minor and beneficial.

Cumulative Effects: Approximately 85 acres of wildlife habitat has been disturbed in the entrance area between park headquarters and the Parks Highway. This includes acres of cleared vegetation for the WAC, Riley Creek Campground, Riley Creek Mercantile, water treatment plant, airstrip, railroad depot, Denali Park Road, Visitor Center complex, and MSLC. An additional 15 acres of vegetation clearing is expected under the hazardous fuels management plan to remove hazardous fuel around park buildings. Because thousands of acres of similar habitat exist in the vicinity, there exists a moderate cumulative impact on wildlife and habitat in the park entrance area and this alternative would be a negligible contributor to that impact since it removes less than 0.2 acre of habitat.

Conclusion: The clearing of trees, shrubs, and other vegetation on less than 0.2 acre of wildlife habitat combined with enhanced protection for beaver built structures and restoration of social trails would result in long-term minor beneficial impacts on wildlife and habitat.

Cultural Resources

The additional trail would provide the opportunity to interpret Horseshoe Lake's human history. This opportunity to highlight human history of the area would have a beneficial effect on expanding the understanding of the advantages of preserving cultural resources.

Cumulative Effects: All known significant archeological and historic sites in the entrance area would remain intact.

Conclusion: The proposed projects would not adversely impact known cultural resources. There would be a long-term minor beneficial impact from education about cultural resources.

Visitor Experience and Opportunity

There would be a temporary impact to recreational opportunities for entrance area visitors from the construction activities. The closure of the peninsula trail will affect the experience of some visitors but is essential to protect wildlife habitat. The impact of formalizing the social trail around Horseshoe Lake Trail would last a full summer. Visitors could still use the existing trail

during the project. The new bridge, puncheon, and board walk would improve visitor safety by providing a means of access across the creek and drainages so that visitors are not tempted to cross on the beaver dams. Once completed, the new trail would enhance the visitor experience at Horseshoe Lake. Impacts are expected to be long-term minor and beneficial.

Cumulative Effects: Additional projects to enhance recreational opportunities in the eastern end of the park have opened recently. Improvements include the DVC, MSLC, and several new or upgraded hiking trails. All of these projects, including the proposed Horseshoe Lake Extension, are considered a benefit to the visitor experience and recreational opportunities.

Conclusion: This alternative would provide visitors with the positive benefit of a safe and scenic trail around the entire lake. There would be temporary impacts to recreational opportunities from the construction activities at the bridge sites and the trail addition. Overall the impacts would be long-term minor and beneficial.

V. CONSULTATION AND COORDINATION

List of Persons and Agencies Consulted:

Janet Post, Regulatory Specialist, Department of the Army, Alaska District, U.S. Army Corps of Engineers, JBER, Alaska

Ted Swem, U.S. Fish and Wildlife Service, Endangered Species Coordinator, Ecological Services Office, Fairbanks, AK

Phoebe Gilbert, Archeologist, Denali National Park and Preserve

Tom Meier, former Park Biologist, Denali National Park and Preserve

Steve Carwile, Compliance Officer, Denali National Park and Preserve

Jared Zimmerman, Project Leader, Denali National Park and Preserve

Carol McIntyre, Wildlife Biologist, Denali National Park and Preserve

List of Preparers:

Paula Homan, Environmental Protection Specialist, Denali National Park and Preserve

Dan Ostrowski, Trails Foreman, Denali National Park and Preserve

VI. SELECTED REFERENCES

Cowardin, Lewis M., Virginia Carter, Francis C. Golet, and Edward T. LaRoe
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1996. Final Development Concept Plan/Environmental Impact Statement, Entrance Area and Road Corridor, Denali National Park, Alaska. NPS Denver Service Center, NPS D-244.

APPENDIX A – Cultural Resources Report

Horseshoe Lake Trail Improvements and Additions

Prepared By:
Phoebe J. Gilbert

Cultural Resource Report No. 2013-DENA-005

Prepared for:
Superintendent Don Striker
Denali National Park and Preserve
PO Box 9
Denali, AK 99755

February 2013

Abstract

The National Park is planning to create a loop trail off of the Horseshoe Lake Trail, which is currently an out-and-back trail in Denali National Park and Preserve. The proposed additions to the Horseshoe Lake Trail will follow existing social trails and will allow redundant social trails to be reclaimed while offering visitors access to viewpoints of the lake currently only accessed by non-maintained, unofficial social trails. The area of potential effect of this project includes four archaeological sites, one of which, the Horseshoe Lake Trail (HEA-00466), has been determined eligible for the National Register of Historic Places. As designed, the project will not adversely affect this historic property's integrity of location, design, setting, feeling, or association, which qualifies the property for consideration for inclusion within the National Register of Historic Places. It is recommended that the Denali National Park and Preserve approach National Historic Preservation Act, Section 106, consultation under 36 CFR Part 800.5(3)(b) as "No Adverse Effect".

Description of Undertaking

Denali National Park and Preserve (DENA), is considering additions and improvements to the Historic Horseshoe Lake Trail (HLT) (HEA-00466). The project will entail the construction of a loop trail from the existing trail to the Nenana River and around Horseshoe Lake, as well as the rehabilitation of social trails that branch off the HLT (Figure 1). The existing trail ends at the shallow northwest side of the lake. From there multiple social trails have developed as visitors seek a better view of the lake, river, and beaver dams (
Figure 2). The proposed trail will provide viewing opportunities of these resources while minimizing impacts to the area.
The proposed project involves the construction of a loop trail from the northern end of the HLT north to the Nenana River and then south and west around Horseshoe Lake (
Figure 3). The new trail will be constructed to a width of 36 inches in most locations, with one section of the trail being narrower at 24 inches.

Project Details (Figure 4)

The present trail end point will continue north 670 ft. to the Nenana River. The trail will then travel northwest for 835 ft. along a Nenana River gravel bar. Little trail construction work will be done here as the area is prone to flooding. The trail will then turn south for 625 ft. using existing social trails, and a 20 ft. log puncheon will be constructed over a flood channel. At the end of this section of new trail, a 38 ft. long steel stringer bridge with AK yellow cedar decking and hand rails will be constructed west across the outlet stream of Horseshoe Lake. The trail will then continue south for 850 ft. through a meadow and spruce forest, following existing social trails when possible. The trail will then follow the western exposed shoreline of Horseshoe Lake for 700 feet; the width of the trail on the shore section will vary from 24 to 36 inches. Local rocks would be used to stabilize the trail near the shoreline, and excavated materials from other sections of the trail would be used as fill for this section. Finally, a 1,000 ft. section of trail will head east through spruce forest and connect back up with the existing trail. A 400 ft. long planked AK yellow cedar boardwalk will be installed on this last section of trail.

The new trail will mostly follow the route of existing social trails (
Figure 3Figure 5). No tread material will be added along the shoreline of Horseshoe Lake or along the Nenana River Gravel bar. Tread mix from a local source will be brought in for forest trail sections. Ground disturbance will consist of widen the existing social trails to a width of 24-36 inches, excavation for the concrete abutments for the steel stringer bridge across the outlet stream, and excavating down 2-6 inches where tread mix will be added so that the new trail tread will be level with the ground surface.

Social trails will be re-vegetated with mat salvaged from the new trail construction. It is estimated that over 3,000 ft. of social trails will be allowed to rehabilitate by concentrating visitor use to the primary trail.

Legal Location for the Undertaking and Local Environment

The legal location of the undertaking is the SE ¼, of Section 33, T13S, R7 W, Fairbanks Meridian (Figure 1). The project is located 1,000 ft. north of mile-post (MP) 1.0 of the Denali Park Road (HEA-429, MMK-171). The project occurs within the Alaska Range west of the Nenana River 1 mile northwest of the Park entrance in the area immediately surrounding Horseshoe Lake. The project area environment, located at an elevation of 1,400 ft., lies within the northern boreal forest biome (taiga), consists mostly of a needle leaf forest of white spruce with groundcover of lichens, mosses, and rose.

Area of Potential Effect (APE)

The Area of Potential Effect (APE) (Figure 6) encompasses a 25ft. wide area on either side of the existing HLT, proposed extensions, and existing social trails. It also includes areas outside of this corridor which potentially could see an increase in foot traffic during the project and which might be affected by project activities. Horseshoe Lake is excluded from the APE. The APE encompasses 36 acres.

Results of Inventory and Records Check

Denali National Park and Preserve cultural resource records and GIS data were reviewed previous to this project. The proposed APE was surveyed in 1983 (Davis 1983) and in June and September of 2012 (Gilbert 2012). One historic property is located within the APE, HEA-466 (HLT). Three historic archaeology sites (HEA-471, HEA-472, and HEA-490) were recorded during the most recent survey. Determinations of eligibility are being submitted with this report for all three sites, and DENA is recommending that these sites be considered not eligible for the National Register of Historic Places (NR).

Horseshoe Lake Trail (HEA-00466)

The HLT (Figure 1) was determined eligible with Alaska State Historic Preservation Office (AK SHPO) concurrence on October 1, 2012. The site is eligible under criterion A on the local level for its history of providing the visitor experience and visitor services at Mt. McKinley National Park, and because of its designation as the first formally constructed trail in the park. The trail was constructed by the Alaska Road Commission (ARC) in June and July of 1940.

Documentation indicates that the trail has been in good to excellent repair for the majority of its existence. In 1944 the trail was reported to be in good condition (Superintendents Monthly Report 6/44) and in 1951 the trail was reported to be in excellent condition (Superintendents Monthly Report 7/50). Due to the popularity of the trail, it's easy access from the Denali Park Road, and its use as an interpretive trail, it is likely that the trail never fell into disrepair.
The HSLT was recommended as eligible to the National Register with a period of significance from 1940 to the present as the trail has been used throughout this time for interpretive programs. The trail has maintained significant continuity of original location, setting, feeling, and association. Overall the trail retains its integrity as the significance for the trail is not in its actual physical components, but rather in the opportunities it affords visitors, it's views of the surrounding area, its association with the interpretive services of the park, and of the start of the trails program at the park.

The proposed project will not adversely affect this historic property as none of the elements through which it retains its integrity will be affected. No reroutes of the original trail are proposed so the integrity of the trails location will be preserved. Additionally, the physical environment of the trail will not be altered nor will the project affect the trails integrity of feeling. This project will still afford visitors views of the surrounding area and opportunities to partake in interpretive programs.

The new trail additions will follow existing social trails as much as possible and will formalize maintenance on unmaintained paths that have been used by visitors and Park interpretation staff for many years. The rehabilitation of other social trails back to vegetated landscape will enhance the historic setting of the trail, as these social trails have developed from years of public use and were not present when the trail was first constructed in 1940.

The trail does not retain integrity of materials as the original physical elements of the trail are unknown. The trail has been resurfaced multiple times with non-historic materials and non-historic log checks have been used to control erosion. The methods and materials of construction proposed in this project are similar to the existing conditions on the trail, and the new trail additions will match existing conditions on the original trail route.

Additionally, the trail does not retain integrity of workmanship. While the original workmanship of the trail has not been documented and is not known, the routine maintenance that has taken place on the trail for the past 73 years would have obscured the original workmanship.

Horseshoe Lake Pit (HEA-00471)

HEA-471 (Figure 7,
Figure **8**, Figure 9) is a rectangular depression. The depression is believed to be a historic storage pit, and is most likely associated with the Euro-American settlement of the area during or after the construction of the railway from 1920 to 1923 (Pearson 1953). It was most likely used as cold storage during the summer months and is unexceptional in its design and construction. A shovel test was excavated in the center of the pit and was sterile. A records check and archival research was conducted to help determine the significance of the pit. No mention of the feature was found in any of the historical texts relating to the entrance area of the park, and no corresponding information was found in the archives (Brown 1991; Bryant 2011; Norris 2006a; Norris 2006b; Pearson 1953; Walker 2009).

The Horseshoe Lake Pit is not eligible for nomination to the National Register of Historic Places because it lacks significance. The pit is not associated with events that have made a significant contribution to the broad patterns of our history, is not associated with the lives of significant persons, does not embody the distinctive characteristics of a type, period, or method of construction, does not represent the work of a master, does not possess high artistic values, and is not likely to yield information important in prehistory or history as no cultural remains were found in the pit.

Horseshoe Lake Railroad Debris (HEA-00472)

This site consists of debris from the Alaska railroad and is composed of a wooden cart, a portion of a railroad car coupler, metal cans, and a scatter of dimensional lumber (Figure 10, Figure 11, Figure 12, Figure 13). The wooden cart measures 16" x 49". It is composed of 4" x 7" dimensional lumber and has steel wheels 10" in diameter that are rusted and corroding.

The coupler is 32" long and 7" wide and is broken on its proximal end. North of the coupler is a disperse scatter of dimensional lumber and metal cylindrical fuel cans. A records check and archival research was conducted to help determine the significance of the site. Historic photographs taken in 1920 show carts similar to the one found at this site being used to move fill (
Figure 14, Figure 15) for railroad construction at mile 350 and 356 of the railroad (HEA-472 is located near railroad mile 348). Other than these photos, no mention of the site or its features were found in any of the historical texts relating to the entrance area of the park, or to the construction of the railroad, and no corresponding information was found in the archives (Brown 1991; Bryant 2011; Norris 2006a; Norris 2006b; Pearson 1953; Walker 2009). The site is associated with the building and history of the Alaskan Railroad, which is a significant event in both local and state history, but the site itself does not convey the significant of this event, or retain integrity.

The Horseshoe Lake Railroad Debris site is not eligible for nomination to the National Register of Historic Places because it lacks significance and integrity. The cart, coupler, timber, and cans are not unique in design or function. Additionally, the artifacts at the site are not in their original location. While the site is associated with the construction of the Alaskan Railroad, the site itself is not unique and lacks integrity. The site also is not associated with the lives of significant persons, does not embody the distinctive characteristics of a type, period, or method of construction, does not represent the work of a master, does not possess high artistic values, and is not likely to yield information important in prehistory or history.

HEA-00490

This site consists of a circular depression, and a 3-sided rectangular berm which is believed to be the remains of a structure (
Figure 16,
Figure 17, Figure 18). The depression is 6.5 ft. x 4 ft. and 0.5 ft. deep. Shovel tests were placed in both the depression and in two locations at the bermed structure; all tests were sterile for cultural material.

The berms of the 3-sided rectangular structure measure, 28 ft. (south elevation), 32 ft. (east elevation), and 27ft. (north elevation) long. The fourth (west) elevation of the structure's berms has been destroyed by the well-used social trail that runs through the site. The proposed project calls for this social trail to be widened and formalized into a maintained trail addition. Project work would include the removal of several trees in the footprint of the structure, and trail encroachment on the remnants of the west elevation of the structure.

HEA-00490 is not eligible for nomination to the National Register of Historic Places because it lacks significance. The site is not significant under Criteria A or B as the site contains no cultural remains that associate it to an important event that has made a significant contribution to history, or to a person of historical significance. As the site does not embody the distinctive characteristics of a type, period, method of construction, or represent the work of a master, or possess high artistic value it is not significant under Criteria C. The site is also not significant under Criterion D as it is unlikely to yield information important to either prehistory or history, as none of the tests at the site revealed evidence of subsurface cultural remains and no cultural remains were found on the surface of the site.

Recommendations

Only one historic property, the HLT (HEA-466) was identified within the APE for the proposed undertaking. The HLT will not be adversely affected by this project, as none of the elements through which it retains its integrity will be adversely affected. While the three other historic sites located within the APE are being treated as not eligible for the NR, their location on or in close proximity to the trail coupled with their physical manifestations have spurred DENA to consider interpretation of these sites for visitors.

DENA is planning on either placing interpretive signs near the location of the sites, or providing interpretive material for visitors about the history of the Horseshoe Lake area and hypotheses on the history of the sites. This aspect of the project is currently unfunded, and would be undertaken as funding became available in the future. The condition of the railroad cart at HEA-00472 is a concern as photographs of the cart over the past six years show its deterioration. Formalization of the social trail past this artifact will likely increase visitor traffic to its location and may result in vandalism. If vandalism is noted at the site, DENA may elect to remove the cart and place it in the collections for preservation.

Monitoring of ground disturbance for bridge and trail construction at HEA-490 is recommended. It is likely that the buried concrete abutments for the bridge will be placed near the depression at HEA-490, and this ground disturbance will be monitored.

If cultural resources or items protected by the Native American Graves Protection and Repatriation Act are discovered during this project, all project-related activities in the vicinity of the discovery will be stopped and the park archaeologist will be notified immediately. Denali National Park and Preserve in consultation with the State Historic Preservation Officer will determine a course of action per 36 CFR Part 800.13.

Based on our review, as designed the project does not adversely affect any historic properties integrity of location, setting, feeling, or association, which qualifies that property for inclusion within *the National Register of Historic Places*. It is recommended that the Denali National Park and Preserve approach National Historic Preservation Act, Section 106, consultation under 36 CFR Part 800.5(3)(b) as "No Adverse Effect."

References

Brown, William E.

1991 A history of the Denali - Mount McKinley Region, Alaska : historic resource study of Denali National Park and Preserve. Santa Fe, N.M.: National Park Service, Southwest Regional Office.

Bryant, Jane

2011 Snapshots from the past : a roadside history of Denali National Park and Preserve. [Washington, D.C.?]: U.S. Dept. of the Interior, National Park Service.

Davis, Craig

1983 Field Notes, Archaeological Surveys within Denali National Park and Preserve.

Gilbert, P.J.

2012 Field Notes, 2012 Archaeological Surveys within Denali National Park and Preserve.

Norris, Frank B.

2006a Crown jewel of the north : an administrative history of Denali National Park and Preserve. Volume 1. Volume 1. Anchorage, Alaska: Alaska Regional Office, National Park Service, U.S. Dept. of the Interior.

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2006b Crown jewel of the north : an administrative history of Denali National Park and Preserve. Volume 2. Volume 2. Anchorage, Alaska: Alaska Regional Office, National Park Service, U.S. Dept. of the Interior.

Pearson, G.H.

1953 A History of Mount McKinley National Park, Alaska: US Department of the Interior, National Park Service.

Walker, Tom

2009 McKinley Station : people of the pioneer park. Missoula, Mont.: Pictorial Histories Pub. Co.

Maps and Figures

Figures 1-3, 6,7,10 &16 have been removed from this report as they contain sensitive location information of archaeological sites.

Figure 1: Project Area (removed).
Figure 2- Overview of existing social trails (removed).
Figure 3- Overview of proposed trail additions and existing social trails (removed).

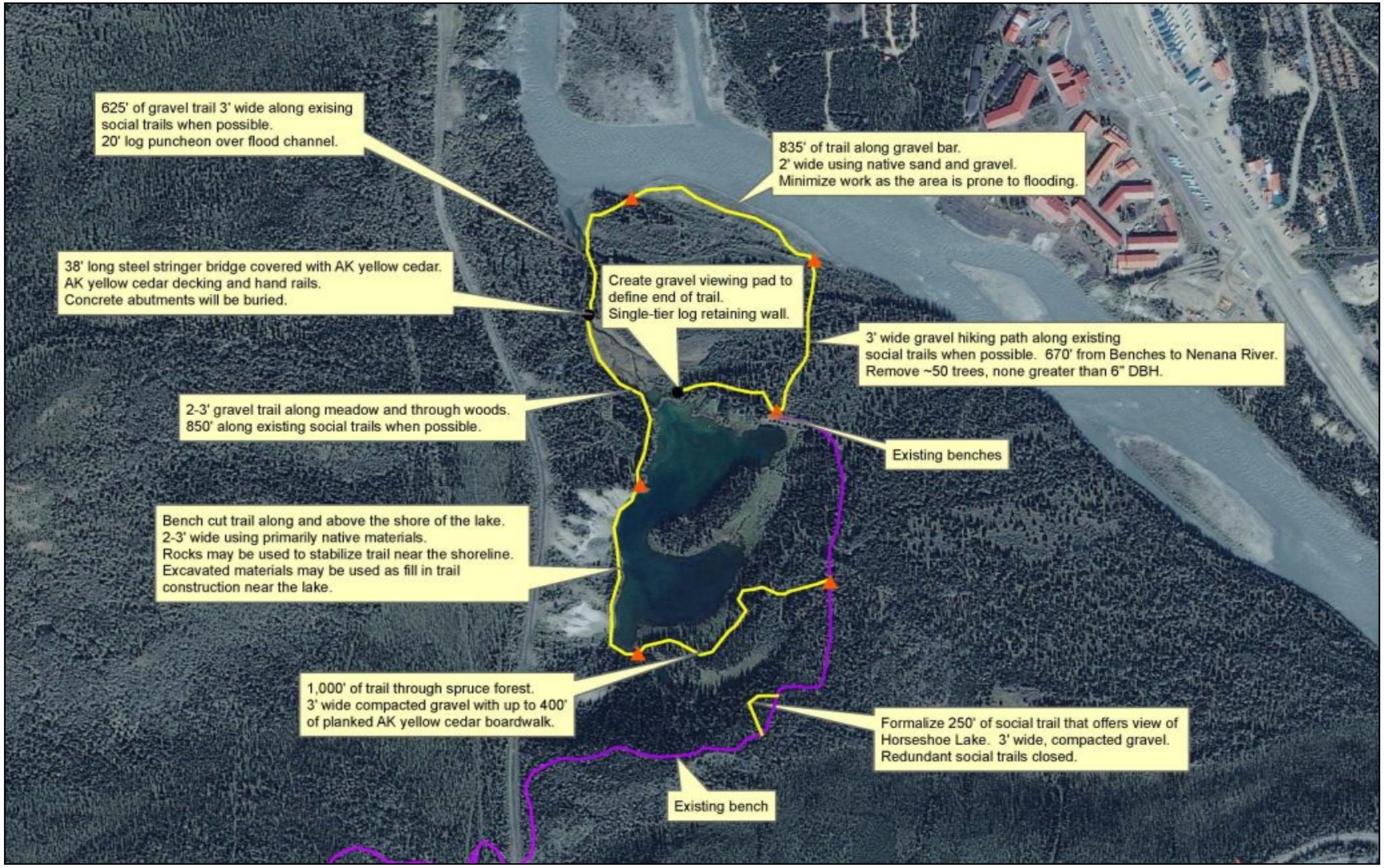

Figure 4- Project Details (from draft Environmental Assessment)

Figure 5- Typical existing social trail that will be improved during this project. (Photograph taken on 8/30/2012)

Figure 6- Area of Potential Effect(removed)
Figure 7- HEA-00471 (Horseshoe Lake Pit)(removed(.

Figure 8- HEA-00471 Overview looking East (Photograph taken on 8/13/2012).

Figure 9- HEA-00471 Overview looking north. (Photograph taken on 5/30/2012)

Figure 10- HEA-00472 (Horseshoe Lake Railroad Debris)(removed).

Figure 11- HEA-00472 Overview of cart looking south. (Photograph taken on 5/30/2012)

Figure 12- Overview of railroad coupler looking south (Photograph taken on 5/30/2012)

Figure 13- Overview of can and lumber scatter looking southwest (Photo taken on 5/30/2012).

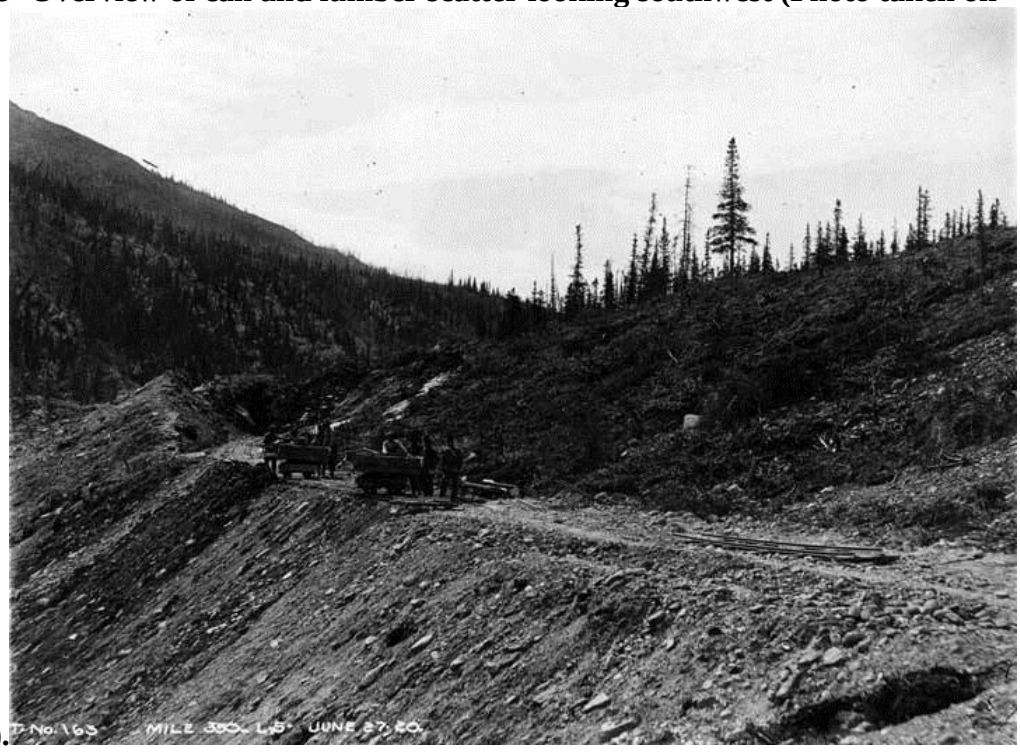

Figure 14- Photograph dated 1920 of railroad construction and of carts similar to the one found at HEA-00472 near the project area (Anchorage Museum of History and Art Library and Archives).

Figure 15- Photograph dated 1920 of railroad construction and of carts similar to the one found at HEA-00472 near the project area (Anchorage Museum of History and Art Library and Archives).

Figure 16- HEA-00490(removed)

Figure 17- Depression at HEA-00490, looking south (Photograph taken on 8/30/2012).

Figure 18- Bermed Structure at HEA-00490. B shows center of berms. (Photograph taken on 8/30/2012)

APPENDIX B – SHPO Concurrence

THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Natural Resources

DIVISION OF PARKS AND OUTDOOR RECREATION
Office of History and Archaeology

550 West 7th Avenue, Suite 1310
Anchorage, Alaska 99501-3565
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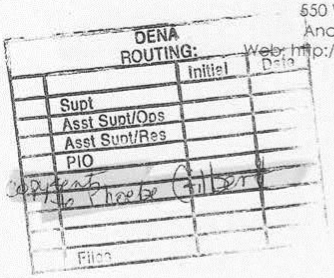
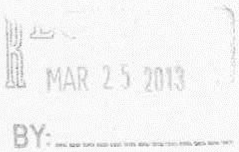
Fax: 907.269.8908





March 19, 2013

File No.: 3130-1R NPS
3330-6N HEA-00471, 3330-6N HEA-00472, and 3330-6N HEA-00490

Don Striker
Superintendent
Denali National Park & Preserve
Mile 237 Parks Highway
P.O. Box 9
Denali Park, AK 99755

Subject: Horseshoe Lake Trail Improvement and Additions (Cultural Resource Report No. 2013-DENA-005)

Dear Mr. Striker:

The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated February 27, 2013) on March 4, 2013.

Following our review of the documentation provided, we concur with your determination that sites HEA-00471, HEA-00472, and HEA-00490 are **not eligible** for the National Register of Historic Places (NRHP). We concur that a finding of **no adverse effect** is appropriate for the proposed undertaking.

Should unidentified archaeological resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria (36 CFR 60.4) in consultation with our office.

Thank you for the opportunity to comment. Please contact Shina duVall at 269-8720 or shina.duvall@alaska.gov if you have any questions or if we can be of further assistance.

Sincerely,

Judith E. Bittner
State Historic Preservation Officer

JEB:sad

APPENDIX C – USCOE Authorization to use Nationwide Permit No. 18, Minor Discharges

DEPARTMENT OF THE ARMY
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
P.O. BOX 6898
JBER, ALASKA 99506-0898

November 5, 2013

Regulatory Division
POA-2013-495

National Park Service
Attention: Ms. Paula Homan
Post Office Box 9
Denali, Alaska 99755

Dear Ms. Homan:

This is in response to your August 19, 2013, application for a Department of the Army (DA) permit application on behalf of the National Park Service, to place a boardwalk on wetland portions of a trail to Horseshoe Lake in Denali National Park by placing less than 2 cubic yards of yellow cedar logs and 0.5 cubic yards of pit run gravel filling 0.02 acres of wetlands.

It has been assigned file number POA-2013-495, Horseshoe Lake which should be referred to in all future correspondence with this office. The project site is located within Section 33, T. 13 S., R. 7 W., Fairbanks Meridian; USGS Quad Map Healy C-4; Latitude 63.7405° N., Longitude 148.9114° W.; in Denali National Park near Healy, Alaska.

Based on our review of the information you furnished and available to us, we have preliminarily determined the above project area contains waters of the United States (U.S.), including wetlands, under the Corps' regulatory jurisdiction. DA permit authorization is necessary because your project would involve work in and placement of structures and fill material into waters of the U.S. under our regulatory jurisdiction.

Based upon the information and plans you provided, we hereby verify that the work described above, which would be performed in accordance with the enclosed plan (sheets 1-3), dated August 6, 2013, is authorized by Nationwide Permit (NWP) No. 18, Minor Discharges. You must comply with all terms and conditions associated with NWP No. 18. NWP No. 18 and the associated Regional and General Conditions are viewable online at: www.poa.usace.army.mil/Missions/Regulatory/Permits.

Further, please note General Condition 30 requires that you submit a signed certification to us once any work and required mitigation are completed. Enclosed is the form for you to complete and return to us. This verification is **valid until March 18, 2017**, unless the NWP is modified, reissued, or revoked. It is incumbent upon you to remain informed of changes to the NWPs. Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

Please contact me via email at janet.l.post@usace.army.mil, by mail at the address above, by phone at (907) 7583-2831, or toll free from within Alaska at (800) 478-2712, if you have questions or to request paper copies of the jurisdictional determination, regional and/or general conditions. For more information about the Regulatory Program, please visit our website at www.poa.usace.army.mil/Missions/Regulatory.

Sincerely,

Janet Post

Janet Post
Regulatory Specialist

Enclosures